Horseshoe/Lion Creek Restoration

By Eckhart Beatty

After much research, restoration on Horseshoe Creek (also known as Lion Creek) in the Oakland Hills has finally begun. On October 5, 1995, a contingent of some eighty community volunteers joined together for an annual creek cleanup event. The next day, a group of students enrolled in Dr. Gary Scott's Creek Restoration class at Merritt College spent another full day working on the upper creek channel.

The creek begins at the northern border of Merritt College whose landfill construction some thirty years ago seriously disrupted the creek's natural flow. The head of the creek is accessible via the historic York Trail, which winds down a considerable hill. Here a concrete channel begins and continues down several dozen yards to an energy dissipator installed to decelerate the water that is sent hurtling down the hill by the culvert and channel.

This is a very narrow channel, which UC Berkeley professor Matt Kondolf described as a "straight jacket on a criminally insane person." On either side of the channel grow vigorous stands of French broom, some of the most dense stands found in the Bay Area. Given the plant's density and size near this channel, taking water flow measurements was a challenge. Despite the broom, careful measurements were recorded by groups of Dr. Scott's students at various sites along the upper channel and the creek bed below the dissipator, beyond whose banks changing vertical and horizontal dimensions (signifying ranges of creek flow hydrodynamics under widely varying rainflow patterns) were also recorded.

Brendon DeTemple, a graduate student of creek restoration in one of Dr. Kondolf's classes, joined the students to discuss his plans to conduct a survey and analysis of the concrete channel and the severely eroded bank sides below the dissipator. Using his data, he hopes to demonstrate the feasibility of removing or modifying the concrete channel with boulders and stabilizing the creek further downstream.

Regardless of the approaches taken toward stabilizing the channel, the goal is to restore the relatively narrow wildlife corridor the creek flows through as closely to its original condition as possible.

Restoration efforts should ideally be site-specific in design. That means that prior to starting any major work, none of the recorded conditions of the Creek's complex ecosystems should be ignored. A key obstacle in the Horseshoe project is finding historical records that indicate as closely as possible the ecosystem's composition before the redwood forest was disrupted by clear-cutting in the 1860s. Only one original-growth redwood in the area is left, although a vigorous stand of second-growth trees lines the channel near the dissipator. It is hoped that someday many more redwoods can be returned to this area.

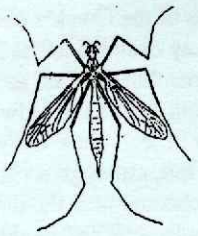
The work-day in October revolved around removing broom, principally near designated replanted trees. The group used the ingenious newly modified Weed Wrench, which was designed especially to remove broom with relative ease. Given the growth rate of this plant, removing it completely will be a major challenge of this project. A serious fire hazard, broom needs to be removed quickly and completely before the creek restoration can be considered to be complete. The native plants can then thrive, and so too can the animal life which has in effect been banished from its home in this wildlife corridor.

Once completed, the project could be dedicated as a sanctuary to be used as an "outdoor laboratory" with an interpretative trail for the enjoyment of the public and by students at the newly dedicated David Brower / Ron Dellums Self-Reliant House. Students could examine a thriving ecosystem, one that is

Jeff Hartman

incredibly rich in variety. But it will no doubt take some years of determined efforts by many friends before this project will be satisfactorily completed. Considerable efforts were put forth in October, 1995. However, with more highly orchestrated activities to bring together a wide range of dedicated groups to share in the joy of returning this unique park land to its native state, much greater progress could be realized.

Persons interested in helping work on this project or attending the meeting should contact Carla Din, Friends of Lion Creek, (510) 832-7021. The Friends of Lion Creek will meet January 15, 7-8 pm.



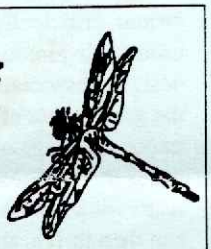
Announcing: the Broom Symposium

The California Exotic Pest Plant Council (CalEPPC) and a number of other organizations will sponsor a Symposium on Broom, April 16 - 18, 1996 at Portland State University, Portland, OR. The purpose of the Symposium is to gather together people interested in broom control or management; present and summarize information on control techniques and the biology and ecology of brooms; identify information gaps on the status, trends, impacts and management of broom; and to consider coordinated local and regional approaches to management of broom.

For more information contact: Weed Control, Oregon Dept. of Agriculture, 635 Capitol St. NE, Salem, OR, 97310-0110.

Kids in Creeks:

A Creek Exploration and Restoration Program for Educators of Grades K- 12



Activities: Conduct creek clean-ups, stencil stormdrains, sample water quality, and more!

Creek-specific information: Includes historical information, newspaper articles, etc.

Maps of local creeks: Trace the creek near your school, and locate other *Kids in Creeks* teachers in your area.

Access to lending library: Curriculum, videos, stream inventory kits, and more...

Spring 1996
Workshop Dates and Locations

Three Spring workshops:

#1 March 29 & 30th, UC Botonical Garden, Berkeley
April 6th, Location To Be Announced
Grades K - 12; 2 1/2 days, 20 hours

#2 April 13th, Sunol Regional Wilderness, Sunol
Grades K - 12; 1 day, 8 hours

#3 May 17,18th, Sulphur Creek Nature Center
Grades 7 - 12, 2 days, 15 hours

ENROLLMENT LIMITED TO EDUCATORS WORKING IN ALAMEDA COUNTY.

Alameda Countywide Clean Water Program

CONTRA COSTA COUNTY

The Contra Costa Clean Water Program has awarded $15,700 to eight *Kids in Creeks* participants in order to assist them in educating people in their communities about the importance of pollution prevention and also to enhance the beauty of urban creeks.

Please contact these individuals if you are interested in helping with these projects (or just to say congratulations!).

West Antioch Creek Field Study and Improvement Project, $2,003 to Antioch High School, Antioch. The Silver Team students will incorporate creek monitoring, rehabilitation, and public awareness into their curricula. They will collect, preserve, and identify existing vegetation on West Antioch Creek, and replace non-native vegetation with natives. The students will also remove trash and debris from the streambanks and bed.

—Jim Hybarger (510) 752-7393

Kirker Creek Public Service Announcement Project, $2,125 to Riverside High School and Village Elementary School, Pittsburg. Students will clean trash and debris around Kirker Creek. They will also monitor water quality and test depth, dissolved oxygen, pH, phosphorus, and temperature every two weeks. Each creek experience will be recorded on video, and articles will be published every six weeks in the Riverside High School newsletter.

—Tim Cooper and Patty Waddington (510) 473-4480

Pine Creek Restoration Program, $1,000 to Foothill Middle School, Walnut Creek. The Environmentally Concerned Kids Club (ECK) will continue with their previous creek clean

Creeks Speak

The Voice of East Bay Citizens for Creek Restoration

Volume 7:1 *Winter, 1995-96*

Second Installment: Sausal Creek

Support is growing for the soon-to-be launched Friends of Sausal Creek, now preparing for its official debut on January 24. Modeled after the successful Friends of San Leandro Creek, the Friends of Sausal Creek is designed to bring community support to the preservation and revitalization of this natural resource that has for centuries enriched the lives of those in Fruitvale and surrounding communities in Oakland.

Local author John Dury, a creekside resident in Oakland, traced Sausal Creek's history from its earliest days in "Biography of an Urban Creek" originally published in the Ecology Center's newsletter Terrain.

The first part of this article was reprinted in Winter 1995 issue of Creeks Speak, *and began with a look at the area some 5,000 years ago. Then Sausal, like creeks near it, was a source of water for drinking and transportation. Its rich plant and animal life formed the base for community life for the Ohlone people for thousands of years.*

With the coming of Spanish settlers, the Sausal Creek watershed became part of Rancho San Antonio, and the role of the creek in the community was drastically changed.

In Part 2 of "Biography of an Urban Creek" we'll see how creek life was forever changed by European settlement and the rapacious goldrush years, in which environmental resources were blithely squandered. This has continued into the present time as urban development continues to crowd out room for creeks to reassume a position of eminence. Dury ends on a note of optimism, however, anticipating that creeks will reassert themselves in the balance between humans and nature.

SAL—YELLOW WILLOW.

We're grateful to the Ecology Center for permission to reprint this article.

Biography of an Urban Creek: Part 2

by John Dury

In 1820 Don Luis Maria Peralta retired from military service at Mission San Jose de Guadalupe. Sergeant Peralta had served as commander of the military forces at the mission since 1798. The area across the Bay from San Francisco was known as Contra Costa, "the opposite coast." It was the center of the Saclan and Volvon, Miwok tribes who rose against the Spanish a number of times. In 1805 the Spanish fought an extended campaign against the Saclan and Volvon in the Mt. Diablo area, and Sergeant Peralta undoubtedly took part in that campaign. On his retirement he won a grant from the crown to an area he named Rancho San Antonio.

Don Luis Maria Peralta's domain ran from Cerrito Creek in the north to San Leandro Creek in the south, taking in present-day Albany, Berkeley, Emeryville, Piedmont, all of Oakland and some of San Leandro. The Ohlone population at that time had been devastated by epidemics and their forced conversion and confinement to the missions. Peralta had grabbed what, in terms of eventual value, was one of the richest holdings in California, though for a European in 1820, the East Bay was the back end of nowhere. Peralta continued to live in San Jose, but he considered Rancho San Antonio his most valuable possession. In 1842 he divided up the rancho among his four sons, each of whom built his own estate on a separate creek.

During this period, many of the creeks received the names by which they are now known. Cerrito was named for the hill at its mouth. Codornices means "quail;" Codornices Creek was named for a feast of quail eggs that two of the Peralta brothers made along one